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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|-------------------------|------------------|
| 10/048,059 | 06/06/2002 | Takashi Nakagawa | 017661-0181 | 8753 |
| 22428 | 7590 | 12/14/2006 | EXAMINER | |
| FOLEY AND LARDNER LLP | | | ZISKIND, ANNA Y | |
| SUITE 500 | | | ART UNIT | PAPER NUMBER |
| 3000 K STREET NW | | | | 2611 |
| WASHINGTON, DC 20007 | | | DATE MAILED: 12/14/2006 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/048,059 | NAKAGAWA, TAKASHI | |
| | Examiner | Art Unit | |
| | Anna Ziskind | 2611 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 October 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 4-7 is/are allowed.
 6) Claim(s) 1-3 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 06 October 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

In the amendment filed 10/6/06, claims 1 and 3-7 were amended. Claims 1-7 are pending in the application.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5715526 (Weaver, Jr. et al.). Weaver teaches an apparatus to control transmission power in a mobile CDMA communication system, the apparatus combining additively the amplitudes of all the data streams to be transmitted to arrive at the desired output power, or amplitude data (Fig. 3, reference 37; Col. 5, lines 56-67; Col. 6, lines 1-10). The invention of Weaver then passes the modulated data streams through variable attenuation means and transmission amplification means (Fig. 6, references 24 and 76; Col. 12, lines 6-15). The variable attenuation means in Weaver's design compares the desired output power (y_d), or amplitude data, with the actual output power (y), or predetermined maximum data, to determine the transmit power tracking gain (y') which controls the attenuation of the variable attenuation means (Fig. 3; Col. 7, lines 35-55; Col. 9, lines 45-54). The transmit power tracking gain is indicative of the degree to which the value of the amplitude data is over the

maximum data. Further, the desired output power y_d of Weaver's design, which reads on the claimed amplitude data, is calculated as a sum of the average of expected power samples from each channel in the system (Figs. 3-5; Col. 10, lines 61-67; Col. 11, lines 1-25 and 52-63). A sum of expected power averages from each channel is itself an average expected aggregate power, thereby meeting the claimed limitation of a mean value of the amplitude data obtained over a predetermined time period.

Claim Rejections - 35 USC § 103

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5715526 (Weaver, Jr. et al.) in view of US Patent 5930242 (Mimura).

As to claim 2, Weaver teaches that the transmission channels include a pilot channel, a synchronization channel, which is a control channel, and a number of forward traffic channels, or call channels (Col. 2, lines 1-4). However, Weaver doesn't teach that the cell size is reduced by reducing the power of a pilot channel in accordance with increasing power of connection channels where the amplitude data is over the maximum value. Mimura teaches an apparatus that first compares the total transmitting power of all channels to a predetermined maximum and, if the power is over the maximum, decreases the transmitting power of a pilot signal (Fig. 2, references A-2 and A-3; Col. 5, lines 50-67). The decreased pilot signal power inherently decreases the cell size,

because the radius over which the pilot signal power is acceptable is decreased (Col. 6, lines 8-14 and 38-46). Therefore, it would have been obvious to one of ordinary skill in the art to include the pilot power decrease taught by Mimura in the invention taught by Weaver. Doing so would improve system performance because the size of each cell would be customized to the number of communications taking place within the cell, thereby equalizing the load on the base station of every cell.

As to claim 3, Weaver doesn't teach that the amplitude data is compared to a threshold value that is larger than the maximum value when the amplitude data is larger than the maximum value. Mimura teaches comparing the total transmitting power, or amplitude data, to two thresholds, one larger than the other, and reporting to a pilot signal transmitting power controller, or upper control device, when the transmitting power is larger than the largest of the thresholds (Fig. 2, references A-4 and A-5; Col. 6, lines 21-37). Although the order in which the amplitude data is compared to the two thresholds differs between the instant application and Mimura, the ultimate function is identical. Therefore, it would have been obvious to one of ordinary skill in the art to compare the amplitude data in the invention of Weaver to two thresholds in order to more appropriately scale the system response to the load on the transmitter.

Allowable Subject Matter

Claims 4-7 are allowed. Reasons for the indication of allowable subject matter are discussed in a previous Office action.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that the desired output value y_d of Weaver does not correspond to a maximum transmission power value, and as such does not meet the limitations of claim 1. However, the language of claim 1 does not claim a maximum transmission power value, but instead claims only "a predetermined maximum data." The claim language is broad enough to use the actual output power y of Weaver to read on the limitation of predetermined maximum data.

Next, Applicant argues that Weaver teaches the use of only the current value of y_d , not a mean value of the amplitude data over a predetermined time period. However, Weaver teaches that y_d is calculated as a sum of average expected transmit power values for each channel. Because each average expected transmit power value is a mean over a predetermined time period, the sum of the expected transmit power values must also be a mean of the aggregate expected transmit power over a predetermined time period. Further, even if this were not the case and Weaver did indeed teach using only

the current value of y_d , the limitation of "predetermined time period" is broad enough to be interpreted to mean only the time period of the current value of y_d .

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Ziskind whose telephone number is (571) 272-2769. The examiner can normally be reached on Mon. - Fri., 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anna Ziskind
Examiner
Art Unit 2611

AZ


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER